

POTTER (W.W.)

Posture in Relation to Obstetrics
and Gynecology.

BY
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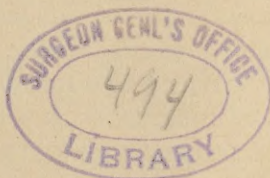
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POSTURE IN RELATION TO OBSTETRICS AND GYNECOLOGY.

By WILLIAM WARREN POTTER, M.D.,
BUFFALO.

INTRODUCTION.

THOUGH there may be little that is novel or striking in reference to posture that I may introduce to this audience, I shall yet endeavor to bring together certain salient features relating to this important question, with a view to make them easily accessible to the searcher for information on the subject. Most of the literature relating to posture is scattered here and there through text-books that only daintily refer to it, or else in journals that an index-catalogue of several quarto volumes is required to make available. If the question should be raised as to the propriety of taking up the time of a learned body like this with such an elementary subject as posture, an answer may be found in part in the foregoing fact, and in other part in the suggestion that it is sometimes well to review elementary principles in order to gather up whatever useful information may have developed since a previous rehearsal, that it may be added to the sum-total of knowledge on any subject under consideration.

It is now a recognized fact, though one for many years overlooked, that posture exercises no small degree of influence in the causation, aggravation, and perpetuation of pelvic disease. There appears to be no good reason why the aid of posture should not be invoked in the cure of maladies which it has played an important part either in producing, exaggerating, or maintaining. Indeed, this principle is well understood and has been amply carried out in practice by many physicians. The law of gravity prevails everywhere alike in nature, and the fluids as well as the solids of the body must obey the same decrees that govern the outside world. The

reproductive organs of women are so generously supplied with bloodvessels that they are peculiarly susceptible to the influences of gravity ; it is so in health, and it is even doubly so in disease, when the pelvic organs are increased in bulk or changed in structure, form, or location. Hence, it is with some earnestness that this subject is urged upon the attention of the Association at this time, for I am convinced that many of its bearings are either indifferently understood, inadequately appreciated, or neglected altogether.

In the pursuit of this subject I have found it somewhat difficult to illustrate the various postures without employing a nude model, since any drapery obscures many important details that ought not to be omitted. One can easily demonstrate the essential factors of posture clinically with a draped figure, but when an attempt is made to reproduce all its various details in a picture, the artist is embarrassed in the truthful portrayal of the subject by the drapery ; hence I shall show you in the course of this dissertation a number of illustrations taken from a nude model.

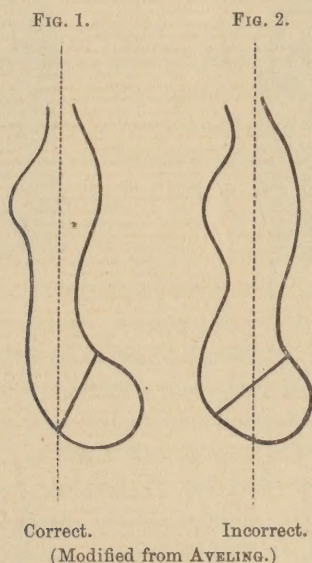
THE ERECT POSTURE.

A distinguishing characteristic of the human species abides in the fact that it assumes the erect posture, instead of the crawling or horizontal all-fours of the brute animal kingdom. This is one of the most important postures with which we have to deal, since it is one so deeply involved in the etiology of pelvic disease. It is the posture of good health, and it is likewise the posture of pernicious disease, the difference only lying between its correct and incorrect assumption and maintenance. The erect posture correctly assumed and habitually maintained means a strong foundation for good health in a woman from youth to age ; it means more than can be told in a single paper of the limit ordinarily allowed in this Association ; and it means particularly that physicians should pay great attention—more attention, I am sorry to say, than they usually do—toward encouraging the maintenance of the correctly assumed erect posture, either as a preventive or a curative measure.

The striking features of this posture are not as easily shown, either in its correct or incorrect poses, by photographic reproductions as are the others, hence I resort to schematic diagrams to illustrate its chief points. The first I exhibit are two diagrams

taken from Aveling's treatise on posture,¹ that serve to illustrate the difference in the gravity line in the erect and slightly stooping poses.

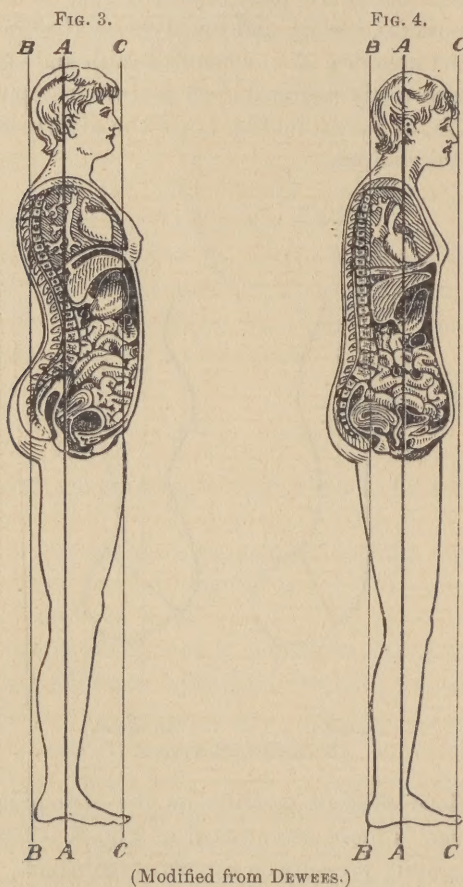
These diagrams point a lesson which is told at a single glance. It will be observed that the gravity pressure in Fig. 2 is greatest near the centre of the pelvic plane, hence it must necessarily crowd downward the organs, tissues, and bloodvessels that are chiefly concerned in the maintenance of a woman's health and characteristics ; whereas in the correctly assumed erect posture it impinges near the symphysis pubis, as shown in Fig. 1, yet the difference between the two figures is very slight.



The pernicious effect of pressure on the abdominal and pelvic viscera, however, is more accentuated in Fig. 4, which is drawn to illustrate the gravity pressure on a retroverted womb, which in turn should be contrasted with Fig. 3, that of a healthful woman in the correctly assumed erect attitude. Figs. 3 and 4 are modified from drawings made by Dr. W. B. Dewees, illustrating a paper on "External Support in Gynecology," presented by him to the Inter-

¹ The Influence of Posture on Women in Gynecic and Obstetric Practice. By J. H. Aveling. Philadelphia: Lindsay & Blakiston, 1878.

national Congress of Gynecology held in Brussels, Sept., 1892, and which he has kindly permitted me to use. They are slightly disproportionate as to the length of the lower extremities, but this is immaterial for the purpose in view. It will be observed in Fig. 3 that the occiput and the heels, *B B*, are on a line; that the nose, groin,



(Modified from DEWEES.)

and great toes, *C C*, also are at the same perpendicular; and it may be added that the slightly flexed elbows, always pertaining to the correctly assumed erect posture, could they be shown, would rest at the same perpendicular. It is my constant habit to instruct women who consult me to assume this posture several times during the day, placing the heels against a door or other perpendicular, and stand-

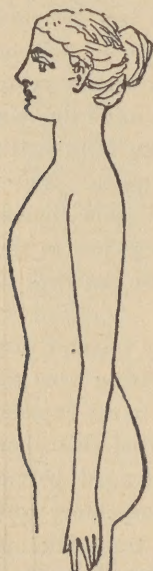
ing so that the occiput, elbows, buttocks, and heels touch the same perpendicular line. This will aid in establishing a custom of correctness where the figure has become slightly bowed from habit. The practice of light gymnastics, too, under the eye of a competent teacher, is a supplementary aid of great value to the gynecological management of many of these cases.

If it be true that a considerable proportion of pelvic inflammations are of a nature, either because of their origin or destructive tendency, to require abdominal section for their cure, there is still a goodly number, benign in character and less destructive in their course, that may be cured by less formidable treatment, or even prevented altogether if proper attention is paid to posture, hygiene, dress, and food. We have only to bear in mind the complex nature of the supply of blood to the pelvic structures to better appreciate the influence of posture on the sexual organs. The bloodvessels and nerves are so interwoven and doubled upon themselves that in attempting to trace them one becomes almost lost in the mazy labyrinth of vessel and fibre, so intricate is the network of connective tissue, vein, artery, and nerve.

The nidus of pelvic inflammation may be, and oftentimes is, a mere trifle—possibly a slight irritation arising from that unknown quantity which we so succinctly formulate in the expression “taking cold.” This, in a patient prone to menstrual disturbances, may be all-sufficient to provoke serious and prolonged pelvic disease. I am now referring, of course, to those inflammatory processes which arise independently of infection, either traumatic, puerperal, or specific. Whatever the cause of the irritation may be, the first pathological manifestation is hyper-vascularity—hyperemia. This hyperemia causes arterial tension, which in turn increases blood pressure, and this soon carries the organs to the stage of congestion. Congestion creates an exaltation of nervous force, when we may observe the resultant nerve turmoil; and this phenomenon produces dilatation of the arterioles, which in turn brings the structures involved to the point of inflammation. With the inflammatory process fully inaugurated, the veins at once become unable to return the increased quantity of blood sent to the parts, and we find true blood stasis established. In the class of inflammations, now under consideration, those that usually fail to end in suppuration but turn themselves toward resolution, we find it very easy for Nature to

establish subinvolution, which means chronic blood stasis. The law of gravity now acting, as I have just pointed out, upon these over-distended vessels, serves to keep up the disease and its resultant reflexes, unless arrested by proper management, for an almost indefinite period. Hence, it becomes of the highest importance to thoroughly understand the physics of posture and to apply this knowledge to the relief of patients who suffer from blood stasis.

FIG. 5.



Correct.

FIG. 6.



Incorrect.

It is not difficult to point out the woman in the street or social throng who is apparently free from pelvic disease, and it is quite as easy to differentiate those who are less fortunate in this respect. By careful observation of the erect posture in profile, it is comparatively simple to note the difference between those who correctly and incorrectly assume it; and, in general, it may be affirmed that a woman who stoops is farther from the health line than one who stands, walks, or sits in the correctly assumed erect posture. The healthy woman easily and readily takes this posture on any and all occasions without effort and without thought; it is, indeed, naturally, therefore easily and gracefully, assumed. On the other hand,

the woman with pelvic disease in sitting, standing, or walking, stoops, bends forward, or shambles in a manner devoid of ease and grace, not only painful to witness, but, withal, betraying her sexual ill-health and the torture of body and mind that the effort to correct, even temporarily while in the drawing-room, the faults of posture subject her to.

The drawings, Figs. 5 and 6, further illustrate the differences between the correct and faulty erect posture.

If, however, the imperfect erect posture is easy of detection, and its baneful influences are correspondingly simple to demonstrate,

FIG. 7.



The faulty sitting posture. (DICKINSON.)

not so with reference to its correction. Many difficulties lie across our path when we attempt to establish the habit of properly sitting or standing erect, in a woman who has become round-shouldered and stooping through the maintenance for many years of these evil practices. Occupation, dress, food, and impure air all play an important part in keeping alive these faults of posture. The seamstress, shop-girl, sewing-machine operator, and various other classes of women engaged in sedentary work of the so-called lighter order, become easy victims of those pelvic disorders that are entailed or aggravated by their methods and habits of life. They stand during long hours without rest, or sit in a cramped and stooping attitude (see Fig. 7) that overloads the pelvic organs with blood, and displaces, overlaps, crowds, or otherwise disturbs their normal place, size, or function. Dr. R. L. Dickinson, of Brooklyn, in an article on

“Diseases of the Uterus” published in Hare’s *System of Therapeutics*, vol. iii., has discoursed upon the evils of fashionable dress in a comprehensive and forcible manner. I am indebted both to the author and the publishers, Messrs. Lea Brothers & Co., for the illustration—Fig. 7—of a girl bending forward at work. It admirably delineates a point that I desire to accentuate. The pelvic organs, it will be observed, are crowded downward into the pelvic cavity until they rest heavily on its floor, while they are overlapping and otherwise making sorry attempts at accommodating themselves to inadequate space. The direful influence of the corset, and the evils resultant from wearing ill-fitting shoes with high heels, need not be enlarged upon at this time. I cannot, however, let this opportunity pass, because it is pertinent to the subject, without pausing to remark that dressmakers, modistes, and corset-makers are most dangerous enemies of woman, for the reason that they insidiously betray her into the habit of wearing tight-fitting clothing that is not only pernicious in its effects, but delays or thwarts all attempts at cure. It is the constant habit of dressmakers to persuade their customers to let them make their dress-waists “a little tighter here, or snugger there,” until at last they find themselves, sometimes against their will, incased in garments that impede circulation and imprison the abdominal and pelvic organs beyond all hope of deliverance. So, too, with regard to foul air and imperfect nutrition. Many of these women spend their days in shops, offices, or rooms in which perfect oxygenation is unknown, only to return to their homes and sleeping-apartments where the air is still worse; while to good appetites, wholesome food, and perfect digestion they are either casual acquaintances or total strangers. Hence it is not singular that systemic faults are established which serve to increase the postural errors, and thus we have a complex interplay of cause and effect that is as difficult to differentiate as to remove. Fig. 6 illustrates this point.

But the erect posture has some importance with reference to obstetrics and gynecology other than to produce or cure disease. In the obstetrical field it becomes of aid in the diagnosis of pregnancy during its earlier months, and is chiefly concerned in this regard with reference to the employment of ballottement. An analogous use of this posture in the diagnosis of pelvic disease makes it sometimes useful with reference to the differentiation of

tumors, cystic and solid ; and it becomes available, also, in the diagnosis of uterine displacements. The methods of using the erect posture for diagnosis will at once suggest themselves to the expert, and need not be enumerated in detail. My purpose is simply to call renewed attention to the fact that it may be of vast use in the management of both obstetrical and gynecological patients, if it is properly employed.

THE HORIZONTAL POSTURE.

The next posture in the natural order of sequence, the antipode of the erect, is the horizontal recumbent posture. The chief obstetric use of this posture may be described in a word—namely, for the employment of palpation. Since the diagnosis of pregnancy is largely made by the touch, and since the position of the fetus in the advanced months of gestation can almost invariably be ascertained by palpating the abdomen, the horizontal posture may be fairly placed among the obstetric positions. In it especially the fetal heart can be best heard and differentiated.

Its gynecological advantages are also related to the diagnosis of abdominal diseases and growths, and particularly is it of importance with reference to the diagnosis of appendicitis, as well as all inflammatory deposits in and about the head of the colon. It is the posture, *par excellence*, for the employment of palpation, with the lower extremities either extended or flexed. The abdominal surgeon has occasion to use it habitually, as it is the posture of operative procedure in nearly all his work. I have illustrated the horizontal posture (Fig. 8) for the purpose of showing its proper maintenance as well as its contrast to the erect posture, and also to bring the anatomical landmarks prominently into the mental field. In this figure we discover the abdominal boundaries strongly marked, such as the lower margin of the ribs, the umbilicus, the processes of the iliac spines, and the symphysis pubis.

THE DORSAL POSTURE.

The dorsal posture naturally comes next to the horizontal for consideration, and is really only a modification of it. It may be divided into the dorsal recumbent, the dorsal elevated, and the dorso-sacral postures.

The dorsal postures with the extremities moderately flexed are used in various obstetrical and gynecological procedures; they only need enumerating to suggest their value and importance. In some countries it is the habit to confine a woman in the dorsal posture, which under certain conditions possesses some advantages. It is, however, one of discomfort to the accoucheur, and is more provocative of genital lacerations than the left lateral position, which is generally chosen for delivery in this country. During the first stage of labor, however, it may be permitted with some degree of propriety, as also the erect posture may be allowed during this stage, for they both prove restful to the woman, and present an opportunity for the law of gravitation to act in promoting dilatation of the maternal parts. This and the erect postures may still further be permitted under watchful care during the first half of the second stage of labor in primiparæ, or other appropriate cases. The dorsal is, furthermore, the posture, in some of its modifications, for the application of the obstetric forceps and for the repair of such lesions as may have occurred during the process of parturition.

Its gynecological importance is great. It affords the most perfect opportunity for digital investigation of the accessible portion of the genital tract, and it also permits the most complete employment of bimanual palpation. In gynecological diagnosis, however, it will often be found a valuable aid to elevate the patient at an angle of thirty degrees or more (Fig. 10), as affording a more thorough opportunity for the digital exploration of the genital tract and the further employment of the bimanual. These four figures (9, 10, 11, and 12) will illustrate the dorsal posture with views in its several modifications.

The dorso-sacral posture is the posture of gynecological operations upon the genital tract. Perineal lacerations are readily inspected and repaired in this posture, as well as some other lesions not necessary to enumerate now. It is the posture to be chosen for the performance of vaginal hysterectomy, and is generally known and described by surgeons under the head of the lithotomy position.

Finally, the dorsal position is employed in the diagnosis and treatment of diseases of the urethra and bladder in the majority of cases other than those requiring surgery.

THE GENU-PECTORAL POSTURE.

The genu-pectoral posture is a posture of great capabilities in reference to the management of diseases of women, and it is likewise capable of many applications in the field of obstetrics. In the latter we often find it of use in replacing a prolapsed funis; it also aids in unshipping an impacted head, and it has been resorted to with avail in the management of transverse presentations where other postures had brought only failure.¹ I have been informed by a professional friend that he has even been able to apply the forceps successfully in the genu-pectoral posture, after failure in the usual forceps position. It will sometimes become of avail when the catheter is required, after descent of the head and imprisonment of the urethra.

In gynecology we find it of great usefulness in replacing a retroverted uterus or a prolapsed ovary. The influence of gravity in adding to or increasing the degree of retroversion is very great. Hence, by a reversal of gravity, we may invoke its law in overcoming the conditions that it has contributed to produce. With a woman properly placed in the genu-pectoral position, a dislocated uterus will oftentimes, unaided, gravitate to its proper level. In other cases it will require some little *vis a tergo* applied by the examining finger or fingers, and in still others slight pressure made with a cotton-mounted probe or other suitable instrument will succeed in carrying it to its place. Having accomplished this, the problem of holding it there is often presented to the gynecologist. In a suitable case without adhesions, and after adequate preparatory treatment, a pessary will often accomplish the desired result. I make the assertion, and I affirm it with all the cogent force of speech, that if a pessary becomes necessary there is really no other position so capable of affording to it all its advantages, that so facilitates its introduction, and that gives a woman so little discomfort in its application, as the genu-pectoral posture. Moreover, it is competent to direct a patient wearing a pessary to assume this posture at intervals during each day, for the purpose of unshipping impaction and relieving any intra-pelvic pressure that may result, and to unload the vessels from the over-distention and fulness that gravitation has caused.

¹ Barnum : Buffalo Medical and Surgical Journal, Jan. 1892, p. 385.

This is the posture that enabled the immortal Sims to develop his operation for vesico-vaginal fistula, and it led to his discovery of the modification of this pose, now known as the semi-prone, or Sims's posture. It is not easy to forget Sims's graphic description of his accidental rediscovery of the principles that have served to make the genu-pectoral posture so valuable in the field of gynecology. I may be pardoned for a brief reference to this most interesting chapter in medical history. In the summer of 1845, a woman riding in the suburbs of Montgomery, Ala., where Dr. Sims then resided, was thrown from her horse, and suffered a sudden, acute dislocation of the uterus. In great pain she was taken to a near residence and Dr. Sims was summoned. He tried in various ways to relieve her without avail, but finally placed her in the knee-chest posture, and introduced two fingers into the vagina. In a moment her pain departed, and she exclaimed, "I am relieved." While studying over the problem as to how this had been accomplished, his patient threw herself down upon her side, when a sudden, loud escapement of air from the vagina told the story. The organ had gravitated toward the epigastrium, and atmospheric air had filled the vagina, distending it like a balloon. It came out with an explosive sound on the change of position, and thus the mystery was solved. The dislocated uterus had been reduced by the conjunction of the two forces—gravitation and air-pressure. Dr. Sims readily applied this phenomenon to the treatment of several cases of vesico-vaginal fistula—an accident of parturition theretofore incurable. He saw, what no man had ever seen before, the interior of the vagina, with the fistulæ *in situ*, and was thus enabled, after a prolonged struggle in perfecting his technique, to cure all his cases. This was the turning-point in the history of gynecology; an epoch was marked. The gynecological universe there and then changed front, and the modern school of gynecology was established in that humble, inconspicuous dwelling.

The late Dr. Henry F. Campbell, of Augusta, Ga., has written voluminously upon the physics of this posture and its application to the treatment of pelvic disease. My experience with it only confirms to a considerable extent the observations of Dr. Campbell. Bozeman, of New York, still prefers the genu-pectoral, or rather his modification of it, for fistulæ operations, in which he has

attained conspicuous success by the employment of his button suture adjusted in this posture. I speak from a large experience in the management of pelvic diseases when I say that—leaving out, of course, all operative cases—I should be compelled substantially to abandon the practice of gynecology if I was to be deprived of the benefits of the genu-pectoral posture. Another advantage connected with this posture resides in the fact that the intestinal canal can be inflated or flushed better with a patient in this attitude, in which the long rectal tube can be passed with more convenience and less discomfort. The knees-elbows posture (Fig. 14), which is only a modification of the genu-pectoral, may be resorted to in cases where it is not competent or possible to employ the classical knee-chest posture.

Let me speak for a moment as to the method of assuming this important pose. To begin with, a table or other firm foundation is necessary. Presuming that a table is used, its top forms the horizontal of a right-angled triangle which is to be completed by the patient's body. In this geometrical figure the thighs furnish the upright and the body the hypotenuse, when we thus have the triangle complete. I lay great stress upon the method of assuming this posture. Failure has over and over again come to the novice or amateur who has attempted to place his patient in this posture for obstetrical or gynecological purposes. The triangle figure is the one of greatest import and the easiest remembered. If the thighs are oblique, making the angle either obtuse or acute, gravity will be impeded. Fig. 13 shows a model in the proper genu-pectoral posture. When a woman is properly placed in the genu-pectoral posture, the abdominal organs, especially the intestines, gravitate toward the diaphragm, the vessels unload themselves, and with comparative ease a retroverted womb may be repositioned, and the necessary mechanical treatment applied to retain it in position with the least possible discomfort to the patient.

It has been asserted that women will either refuse altogether to take this position, or, having taken it, will not keep it long enough to permit the necessary treatment of their conditions. As yet I have never met such a woman. I am in the habit of using this posture daily, and, after fully explaining it to them so that they understand it, my patients are more than satisfied that it is easy and effective. This is especially the case with women who have

been treated by physicians who do not employ this posture, the contrast in postural ease and facility of treatment being so great as to occasion remark.

THE SEMI-PRONE POSTURE.

It is to the genius of Sims, as I have before hinted, that gynecology owes many of its most substantial improvements. This may be said to apply either to instruments or methods. It has been asserted that it were as well to give up the practice of gynecology as to attempt to do without the Sims posture and the Sims speculum. It certainly is an important pose, both with reference to minor and to operative treatment within the genital tract. But in order to obtain its greatest benefits and its most substantial results, this posture must be properly studied by the physician, and he must acquire dexterity in the several uses of this pose. Strictly speaking, the semi-prone position is not an obstetrical posture, but it is so nearly allied to the left lateral recumbent that it easily becomes blended with it in some obstetrical procedures. It is a suitable posture for all manipulation connected with the curettement of the uterus, whether for retained secundines after abortion or for neoplasms or other abnormal conditions of the endometrium. Some operators, however, prefer the dorsal elevated posture for this operation. It is the essential posture for intra-uterine irrigation after labor, when that procedure becomes necessary. There are very few intra-uterine processes of instrumentation that are not better performed with the patient in the semi-prone pose than in any other. The tamponade of the vagina for uterine hemorrhage can be adequately performed in this position, and it is the principal posture for rectal explorations. The hot rectal lavement administered through the long tube is rendered more efficient, because more certain of its reaching the high portions of the intestines, when administered with the patient either in this attitude or in the genu-pectoral posture.

It has been my experience on one or more occasions that forceps could be applied in the Sims posture after failure in all others. It is a posture that is often misunderstood, because frequently illustrations are misleading. I have endeavored to represent it faithfully in the photographs which I reproduce, though I confess it is not an easy matter to properly pose a patient in this attitude, and then

reproduce it accurately. I first show the posterior semi-prone (Fig. 15), which will accentuate the fact that the right knee and thigh are drawn well above the left, and also that the left arm is released and hangs over the edge of the table, while the patient's chest comes in contact with its top. This is made still plainer, especially as regards the position of the lower extremities, in Fig. 16, which is an anterior view of a model postured precisely as in the previous illustration. Sometimes it is requisite to give the table a tilt after the patient is posed, but I have found this rarely necessary unless the woman possessed some marked anatomical peculiarities.

TRENDELENBURG'S POSTURE.

The Trendelenburg posture has been made use of chiefly by abdominal surgeons, who have been led to believe that the gravitation of the abdominal viscera toward the diaphragm would overcome many difficulties that otherwise frequently occur during the progress of operations. Probably there is no one operative posture that is the subject of more disagreement just now than this. Some operators laud it beyond reason, while others decry it with a wholesale condemnation. It is highly probable that this posture, which means that the patient's body shall recline at an angle of about forty-five degrees (Fig. 17), has some advantages which make it important to consider, and at least to be familiar with; but it is not probable that it will ever supplant the ordinary horizontal pose for the largest number of abdominal sections in the hands of the largest number of operators. In the treatment of incarcerated hernia it may serve a useful purpose, for I have known it to aid in the reduction of hernia, when taxis in the horizontal posture had failed.

The modified Trendelenburg posture, with the entire lower extremities and pelvis elevated at an angle of fifteen to twenty degrees, sometimes is available in producing a reversal of gravity in pelvic disease. I have myself employed it with advantage. It is advocated by Emmet very strongly. I remember a patient that I attended about eight years ago that seemed to be nearly or quite cured from a threatened grave pelvic inflammation by the persistent use of the elevated posture *à la* Trendelenburg modified. Dr. Florian Krug, of New York, has read before this Association a

most excellent paper on Trendelenburg's posture.¹ Dr. Willy Meyer was present at the time, and made a demonstration of the various uses of the pose, all of which has been so recently done that I will not go into further elaboration of this posture now.

But, if I should undertake to describe all the details and uses of the various postures that will suggest themselves to active, energetic practitioners, it would not only consume too much of your valuable time, but it would be wearisome to your patience as well as uncomplimentary to your intelligence. My purpose has been to group the most practical postures, illustrate them intelligently, and discourse upon them as briefly as is consistent with the importance of the subject. I hope I have at least partly succeeded.

DISCUSSION.

DR. JAMES F. W. ROSS, of Toronto.—Mr. President: There are two or three points in connection with this interesting subject upon which I would like to say something, and the first is that I hope Dr. Potter will complete this series of photographs that he has exhibited, for our valuable *Transactions* for another year, showing something that has been omitted in the photographs as presented, and something that has not been presented heretofore to the student of medicine—namely, the appearance of the parts during the time the patient is in the genu-pectoral position and after the air has rushed into the vagina. Such a picture would be a practical demonstration of the value of the posture. Then, again, in Sims's position the same effect could be photographed and its value for vesico-vaginal fistulæ operations demonstrated. If Dr. Potter will take some photographs to illustrate these points they would serve to still further complete his work.

I look upon the subject of posture from two points of view. In the first place, I am not one of those who consider the faulty erect posture as a cause of disease, but rather to be the result of a peculiar systemic condition that may itself aggravate and keep alive the already existing disease. In the second place, I look upon these postures as valuable from a surgical and gynecological point of view. Permit me to speak

¹ Trans. Am. Association of Obstet. and Gynec., 1891, vol. iv. p. 219.

FIG. 8.



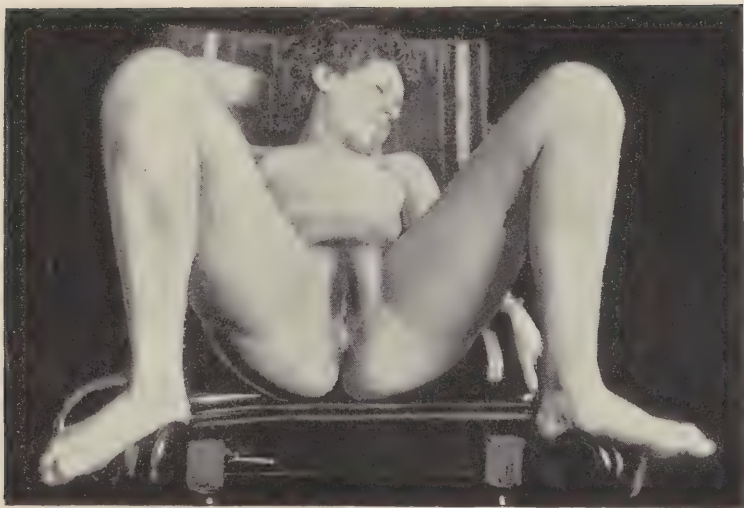
The horizontal posture.

FIG. 9.



The dorsal recumbent posture.

FIG. 10.



The dorsal elevated posture.

FIG. 11.



The dorso-sacral posture—lateral view.

FIG. 12.



The dorso-sacral posture—oblique view.

FIG. 13.



The genu-pectoral posture.

FIG. 14.



The knees-elbows posture.

FIG. 15.



The semi-prone posture—posterior view.

FIG. 16.



The semi-prone posture—anterior view.

FIG. 17.



The Trendelenburg posture.

with some detail and in the order presented by the author of the paper. The faulty erect posture I consider to be due to a general relaxation of the parts, a want of tone of the system; and, if a woman suffers from uterine displacement, the great element in the cure of that displacement I consider to be a toning up of the system. If a woman will sit around the house from day to day and take no exercise, all the pessaries in the world will not relieve her reflex nervous symptoms. The tone of the general system, I repeat, must be improved.

As to the corset, it is my practice in making examinations of women to insist on its removal. It is an impossibility to examine the pelvis of a woman properly while she has a corset applied to her body, for it pushes down the bowels. This is easily enough demonstrated, for with the bowels pushed downward a large amount of intestinal flatus is imprisoned between the finger in the vagina and hand outside, hence we are not able to feel the organs as accurately as can be done the moment the corset is removed. This is evidence enough of the fact that the corset produces a certain amount of damage to the pelvic organs. A change takes place in these organs during the semi-prone position. While the patient is in the dorsal position, if I want to replace a retroflexed uterus, I find it almost impossible to do so without the sound, unless the patient is under an anesthetic. The moment the patient is placed in the semi-prone posture the uterus is easily replaced. But when once replaced in the dorsal posture it has not the same tendency to go back into its original position, as it has when replaced with the patient in the semi-prone position.

I would like to say one word of praise for the genu-pectoral position. I have in one case operated for vesico-vaginal fistula in which the woman refused to take chloroform, so I placed her in this position, and it was one of the easiest operations I ever did. It can be done very frequently; you can operate without chloroform or cocaine if the patient is placed in the genu-pectoral position; the pain is slight and leaves the patient soon after the operation. Of the value of Trendelenburg's posture I take an intermediate view. I am sure it has been of the greatest assistance to me. If you have a severe pelvic hemorrhage and place the patient in Trendelenburg's posture you can see the mouths of the bleeding vessels as readily as when you are amputating a leg and have the vessels in the leg before you. For the operation of abdomino-vaginal or complete hysterectomy the Trendelenburg posture is invaluable. The intestines are kept out of the way. I consider that the position is employed much more frequently than is necessary; however, that is just a matter of fancy. If a man

is used to the position, let him employ it. I operate without using it in a great many cases.

DR. CHARLES A. L. REED, of Cincinnati.—I have very little fault to find with Dr. Potter's paper. There is possibly one point that I shall criticise—namely, the failure of the essayist to emphasize the erect posture, particularly in examinations undertaken for the accurate estimation of displacements. When I have examined a patient lying on her back, as I generally do, and I find some evidence of displacement, I repeat that examination with the patient in the erect posture, she having one foot placed on the rung of a chair. In that way I determine with accuracy the degree of the existing displacement. If, for instance, you place a patient in the recumbent position and have a retro-displacement, that displacement is exaggerated by the position of the patient. If an anterior displacement, and the patient is placed in the recumbent position, the uterus naturally in most instances drops back. One can estimate the amount of pressure exercised upon the bladder and posterior structures with very much more accuracy by having the patient on her feet. So forcibly has this impressed me, that I make this method a matter of routine practice in all cases in which I am examining for the accurate estimation of an existing displacement.

Now, with regard to the Trendelenburg posture, permit me to say that Trendelenburg devised this posture for the performance of suprapubic cystotomy, and that it was first applied for intra-pelvic operations, so far as any existing records show, by Dr. Krug, of New York. By this adaptation of the posture his name is justly entitled to be coupled with that of Trendelenburg. In the published reports of my cases I have, therefore, alluded to this as the Trendelenburg-Krug posture. In deep pelvic hemorrhage this posture brings the bleeding-points directly under observation, and so converts a remote territory into a comparatively superficial one. With the question of pelvic hemorrhage there is another element to be considered in the adaptation of this position, and that is we get the benefit of gravity in resisting the cardiac force. This is an element that is well worthy of consideration.

I have had very satisfactory results from treating patients with secondary cystitis, particularly when due to long-existing pressure upon the bladder from an anteriorly displaced uterus. I have a great deal of satisfaction in treating these cases by placing them in the recumbent posture, with the hips elevated, and keeping them in that position for some time.

Just one point in respect to what Dr. Ross said with regard to the faulty erect posture being considered a cause or consequence of intra-pelvic disease. I feel sure that in a majority of instances the faulty erect posture is a consequence rather than a cause of pelvic disease. If we glance at the drawing (Fig. 4) we will discover the uterus pressing down well against the lower plexus of nerves, with all the superimposed viscera assisting to keep it in that position. If now this patient were to assume the correct erect posture, she would increase the tension of the anterior abdominal walls, and to that extent would increase the pressure upon the intestines, uterus, and, finally, upon the sacral nerves, which are already impinged upon to a painful degree by the displaced uterus. Increase of pain would be the result, to avoid which the patient maintains "the faulty erect," or, more properly, the partially stooping posture. If we take the contrary position, one of extreme anterior displacement, we then have to deal with a uterus that is so far displaced that it cannot be replaced by tightening the anterior abdominal wall. The anterior deviation of its axis is so great as to place it beyond and below direct control by the abdominal wall. The pressure, therefore, pushes the uterus still more upon the already irritated bladder. For the purpose of avoiding this pressure, the patient stoops forward and assumes what we are discussing as the faulty erect posture. I had an illustration of the effect which the assumption of the erect posture induced in a patient, who stated that she felt all the time as if she was "too short in front." If she straightened up the pains were increased. I am disposed, for these reasons, to look upon "the faulty erect posture," as we ordinarily meet it, as a consequence rather than a cause of displacements.

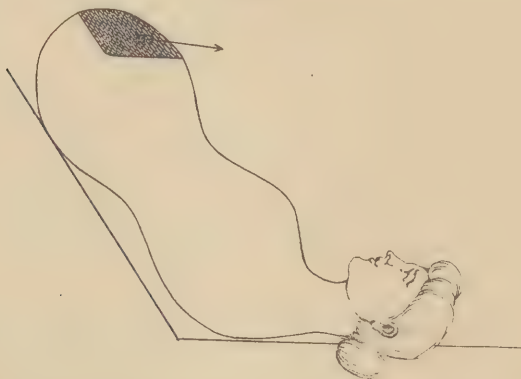
DR. WILLIAM H. TAYLOR, of Cincinnati.—I specially commend the photograph of the genu-pectoral position presented by Dr. Potter. I think it, as shown, is in accordance with the experience of almost any physician who has attempted to teach patients how to assume this position. It is with great difficulty that they are induced to pose with the thighs perfectly perpendicular; almost always the upper ends are farther inclined toward the body than the lower, so that the patient does not get near all the benefits of the genu pectoral position. With reference to that posture, but especially with reference to Sims's position, a point which the essayist perhaps omitted for want of time, I think both are greatly to be commended in those harassing cases that we see sometimes in consultation, and which the books call "Neglected Shoulder Presentations," where the shoulder has become impacted in the brim of the pelvis. In these, very many have experienced difficulty

in introducing the hand above the brim, seizing the leg and making version. If we have a woman in the Sims position, or supported in the genu-pectoral position, the body of the child may gravitate away so as to draw the shoulder out of the brim; hence we are materially aided, generally speaking, by putting the woman in this position instead of keeping her on her back, as is usually done.

Another point which the essayist did not mention, is the advantage of Sims's position in local treatment of the uterus. Dr. Ross spoke of placing a woman in that position to restore the retroverted uterus, then turning her on her back when introducing a pessary. I am always in the habit of introducing balls of wool or tampons through Sims's speculum with the woman in Sims's position. This, I think, allows greater facility of adjustment, and in almost every case it is a better position for that work than when the woman lies on her back.

DR. ROBERT T. MORRIS, of New York.—I wish that all of the 64,000 physicians in the United States could see the little sketch that I am going to draw upon the blackboard in reference to appendicitis

FIG. 18.



Trendelenburg's posture in appendicitis with abscess.

Shaded part represents walled abscess. Arrow represents natural direction of pus and irrigating fluids through an incision.

cases with abscess. Here is an appendicitis abscess (illustrating), and here is another collection of pus—one of the multiple abscesses. Here are the adherent intestines, and here is the appendix. With a patient lying in Trendelenburg's position, which is illustrated in the drawing, when the abscesses are opened the pus runs out and you are enabled to find all adhesions by sight; also a fixed or gangrenous appendix. Undoubtedly the patient will recover if we simply drain out this pus and

leave the appendix, but the patient will have appendicitis again, and adhesions left will give trouble, perhaps in themselves causing the appendix to swell and choke itself to death. No one can tell when the appendix is going to choke itself to death. In the Trendelenburg position we let out the pus, we wash out with peroxide of hydrogen, we separate adhesions, we remove the appendix, and do all of the work cleanly and accurately by sight. In the old horizontal position, if we open the principal abscess and then separate adhesions, the intestines not only come bulging out, but the pus from the small multiple abscesses, ruptured by the finger, spreads over the abdomen without our knowing it. In Trendelenburg's position the patient's heart is not taxed as it is in the horizontal position, and we do not shock the patient in keeping the intestines forcibly out of our way, for they quietly sink out of the way and do not have to be handled. Solutions which we throw into the cavity run out again by the ordinary law of gravitation, and do not sink down among intestines. Trendelenburg's position, then, is one of the most important of special postures.

DR. JOSEPH HOFFMAN, of Philadelphia.—Dr. Morris has given us, by means of the blackboard, some very good points in reference to adhesions. But suppose these adhesions are friable through long continuance, and that they are almost rotten, as we sometimes find them, putting all the intestines on the strain! This danger, it seems to me, is not an exaggerated one. The simple position of itself would not be without some danger of rupturing a pus sac which otherwise is intact, just as a carriage accident might rupture an abscess in any other place. If this abscess exists, if it be full of pus, if the intestines be rotten, it is idle to say that pus in this position will not infect the general peritoneal cavity. We have fulminant cases of appendicitis, cases in which the pus floods or infects the abdominal cavity, and pus will not travel upward. How does it infect the general peritoneal cavity? If pus will infect the general peritoneal cavity with a man on his feet from sudden rupture, why will it not infect the general peritoneal cavity in Trendelenburg's position? The whole truth of the matter is, that an abscess will open out if it has the direction in its favor; but to say that the Trendelenburg position itself is a cure-all, or that it approximates a cure-all, or renders operations of this sort entirely devoid of danger, is, I think, an exaggeration of the facts.

If we wash out the abdominal cavity after an operation in this position what do we have? I submit that water will not flow out of that incision. If I have my patient in this position (illustrating), washing out the pelvis, I know full well I get water with my irrigator clear to the diaphragm. In cases of ectopic pregnancy I have washed out clots

clear up under the diaphragm, and how, with a patient standing in the position which you see on the board, water will not go to the diaphragm is against everything we know regarding the way fluids gravitate. When we have a man standing on his head, the natural push of the intestines will force the water to go in the direction in which they lie. To invent an operation of this sort for the performance of supra-pubic cystotomy is, I suppose, to bring the bladder up against the pubes. We all know that the bladder itself crowds the pubes, especially if it is full. It is just like inventing a position by putting a man on his abdomen, cutting a hole in the table, and working underneath. Supra-pubic cystotomy in the horizontal posture is one of the simplest and easiest of operations. To require a special position is to require something I know nothing about.

In reference to hysterectomy—and I have seen hysterectomy after hysterectomy—I know full well that if you take a tumor of any size whatever—remember, I am speaking of sizable tumors in the pelvis—the intestines are pushed up as far as you can get them. You may stand a woman on her head and they will not go any farther up. When the tumor is delivered the abdomen can be closed at once, all but the pedicle; hence, it is easy to see the imaginary trouble that comes out of an operation of the sort that has been described.

A word with regard to controlling bleeding-points. How often after removing everything, and you see a bleeding-point in the pelvis, do you put on a ligature, or do you find bleeding from an artery that you want to tie? Not once in fifty times. The more ligatures you put in the pelvis the oftener you will kill your patient. You may resort to pressure or hot water, and that controls it. A week ago I removed a placenta in a case of extra-uterine pregnancy half as big as the crown of a derby hat. The woman was not in the Trendelenburg position; neither was there a ligature in the pelvis.

So far as the positions are concerned, as brought out by Dr. Potter in his paper, I think they are admirable, and, as already expressed, they seem in many respects to give an idea of posture, and of the way posture is made to assume importance in the various operations.

The ideas that Dr. Reed has given us in reference to the examination of patients while on their feet are of importance in some cases. As a routine practice I would not go so far as Dr. Reed has advised. However, each man is entitled to his view on a point upon which he is thoroughly convinced. So far as my own feeling in reference to the Trendelenburg posture is concerned, I will say, not to dispute the honesty or the good reason by which Dr. Morris arrived at his con-

clusions, that in some points, at least, the conclusions are not based on physiological facts.

DR. REED.—I would like to ask Dr. Hoffman whether he has ever employed the Trendelenburg posture?

DR. HOFFMAN.—I have to some extent, but not in cases of the sort under discussion, because I have never found it necessary.

DR. RUFUS B. HALL, of Cincinnati.—If it had not been for the remarks of Dr. Hoffman I would not have said anything. I will not go over the subject that has been so ably discussed, for, in the main, I approve of the discussion so far. I want, however, to enter my protest against the Trendelenburg posture as advocated by Dr. Morris for the same reasons as those Dr. Hoffman advanced. It has been my custom in operating for abscess to exaggerate the position of the body the other way. Instead of elevating the hips, I put a couple of pillows under the shoulders, and elevate them, as by so doing I would not force more pus into the general peritoneal cavity from gravitation than I could avoid. It is fair to presume in these cases that you are going to open the general peritoneal cavity when you open the appendicitis abscess; then, with the pelvis lower than the shoulders after you have completed your operation and thorough irrigation, as suggested by Dr. Hoffman, you get the results—the recoveries—which are worth more than all the theoretical measures that one could devise. Of course, it is desirable first not to open up a pus cavity into the general peritoneal cavity, but that cannot always be avoided. Irrigation puts the patient in the best position for recovery. I do not agree with Dr. Morris that you can wash out this cavity, and not have the fluid go into the general peritoneal cavity after separating the adhesions. Before I irrigate the cavity, if for any reason I have elevated the patient's hips in the Trendelenburg posture, I would put the patient in the dorsal position, and take the precaution to elevate the shoulders, so as not to diffuse the pus into the peritoneal cavity.

I cannot agree with the last speaker in that the Trendelenburg posture is not a desirable one in many operations in the pelvis. Take, for instance, a case of hysterectomy for a large tumor. In operating with a clamp it is not necessary to elevate the hips, but those of us who have operated by total extirpation of the cervix in these cases, and used the position, I am certain can indorse it most emphatically. As mentioned by Dr. Ross, it puts the field of operation plainly before the operator, so that the broad ligaments can be easily ligated without lengthening the incision, and almost as readily as the vessels in the case of an amputation of the thigh. It is easy of access. I

cannot see why we should not adopt this position in cases of total extirpation. I have done so, and with great advantage, in that it has facilitated my work without making an incision larger than is absolutely necessary to roll out the tumor; then close up the cavity with sponges, and there can be no harm in elevating the patient's hips. For heart-failure or symptoms of heart-failure, if I should meet with such a complication, I would put the patient in the horizontal position, or do whatever suggested itself. All things considered, it gives patients better chances in shortening the operation by adopting this position.

In reference to pus-tube operations, it is not an infrequent thing to have the ligature cut off the specimen, and you have a hemorrhage that is not easily controlled in the horizontal position. In the elevated position you can at once see the bleeding-point or points, and can apply a ligature to the stump or bleeding vessel without difficulty. In those operations I have adopted the position with the greatest satisfaction and advantage. I said to a friend sitting beside me a while ago, that I think so much of the position that I would almost be willing to go out of the work if I could never again employ it.

DR. ROSS.—I crave the indulgence of the Association for one moment. My remarks have been referred to by Dr. Hoffman, and I suppose I have a right to reply to his criticism. I may say that he is totally mistaken regarding his statement of what he said were the facts in connection with the operation of abdomino-vaginal hysterectomy in Trendelenburg's position. We are impeded in the operation by the intestines after the removal of the tumor. Those who have done the total extirpation of the uterus are well aware of this fact. It is very necessary that the intestines should be out of the way, because occasionally we have bleeding from the cut surface of the inter-abdomino-vaginal tissues. I have on one or two occasions been forced to put a ligature on some artery spouting in this tissue. Unless this is done, the patient is liable to bleed to death subsequent to the time that she is put to bed. I do not know what is the matter with the Philadelphia surgeons, but Dr. Hoffman, quoting from Dr. Price, seems to think the Philadelphia or some other surgeons get inside, and sit down to do their work. If Dr. Hoffman will come to Toronto, I will show him that I am not one of those who get inside and sit down to do my work. I try to do my work as rapidly as possible. There is no place in surgery in which the Trendelenburg posture is more valuable than in complete extirpation of the uterus, and it is especially valuable in the extirpation of a small uterus bound down by

adhesions. One word more: Occasionally a man who is not a conservative surgeon, in one sense of the term, will be unable to complete an operation without the Trendelenburg posture, on account of the adhesions. They cannot be controlled short of the ligature, and those that are the deepest and densest cannot be torn through with safety, but must be cut through in many places. I have operated on cases in which I have gone down cutting piece after piece off adhesions, that I could not tear through without interfering with vital structures. On account of the weakness of the woman, I have in several such cases been unable to remove both sides with safety, and have gone back and done the other side at a subsequent operation.

DR. EDWIN RICKETTS, of Cincinnati.—I would like to ask the question, Is it possible to put these patients to bed as dry after having used the Trendelenburg posture as it is in the old manner of operating? If such is the case, I have not been able to see it. I have seen a number of operations done in the Trendelenburg position, and when those patients were put to bed, they were in a condition similar to a man that has been pulled out of a river with his clothes on, almost drowned. It does seem to me that this wetting process which accompanies the use of the Trendelenburg position is a serious objection.

DR. FRANK A. GLASGOW, of St. Louis.—There is one point in Dr. Potter's paper, viz., where he ascribes congestion and inflammation of the pelvic organs to the stooping posture, which I wish to speak of. In my opinion, entirely too much stress is laid on it as causing congestion and inflammation. He has admitted that the women who assumed this position on account of laborious tasks were not those who were most subject to uterine troubles. This very fact proves, I think, that he is wrong in ascribing so much influence to this posture in causing pelvic disease. These women do have prolapse and its attendant trouble, but they are not so subject to uterine disease as those who take very little active exercise. This, I think, proves that it is not the stooping posture in itself which causes pelvic congestion.

I would not go so far as a gentleman who read a paper before the American Gynecological Society, I believe, who holds that the prone position is the natural (original) posture for women as well as beasts, and that the upright posture is an acquired habit. These are extreme views, and I do not agree with them.

No one can deny that this stooping posture has a bad effect on the pelvic organs. It aids congestion, not through direct action on the circulation, but indirectly through lack of development of the thoracic organs and through pressure on the thoracic venous channels. The

slight difference in the position in which the uterus would lie in this posture and the correct posture, would have little effect on the circulation.

DR. J. H. CARSTENS, of Detroit.—I want simply to ask a question. It seems to me that everything has been referred to the standing position of women. I would like to know what the effect is on women who sew and use sewing-machines. If this pressure of the intestines has an effect in displacing the uterus, all the women who sit all day long, who have that pressure of the intestines and congestion of the pelvic organs, ought to have displaced uteri, congestion, and inflammation. I believe, with Dr. Ross, that that position has very little to do with displacement of the uterus. I hardly ever have a case that I cannot trace to some injury. The patient has fallen or has received a sudden jar which is the cause of her displacement. That is the only point I wish to make. I think, with Dr. Ross, that it is some constitutional condition, some little malformation about the pelvis. I think tilting of the pelvis in one woman is different from that in another—that is, the height of the symphysis in reference to the promontory of the sacrum when standing—causing, by such anatomical deviations more or less direct pressure on the pelvic organs.

DR. L. CH. BOISLINIÈRE, of St. Louis.—Owing to the kindness of the President, I have been invited to make a few remarks upon the able paper of Dr. Potter. The subject of Dr. Potter's paper was "Posture in Relation to Obstetrics and Gynecology." It is a vast subject, and, to condense my ideas on the subject, I will only refer to a few points.

The obstetric position. This, in general, is the dorsal position, as it allows of uterine massage by the Dublin or the Kristelter method, and the expression of the child and placenta. It also guards against the entrance of air into the uterine sinuses—sometimes a cause of sudden death. This position permits the introduction of the hand or forceps in the direction of the axis of the superior strait. If the head of the child is high, the patient should be placed at the very edge of the bed, and the knees kept widely apart by two assistants. If the child's head is at the inferior strait, place the patient also on her back, but not so near the edge of the bed. This position will allow of a more ready delivery of the shoulders, should these be large.

An exception to this method is when, in turning, the back of the child is to the back of the mother, then the lateral position is preferable; it will facilitate the introduction of the hand, as, in this case, the anterior plane of the child being to the mother's abdomen, it is easier

then to enter the uterus in the direction of the axis of the superior strait, and the feet will be easily seized, as they are placed on the anterior plane of the child.

When, in turning, the feet have been brought down, the woman should be replaced on her back, as in this position, by external pressure, the child's head will be kept flexed, its arms folded on its anterior plane, and the after-coming head and placenta may be gently expressed by the Credé or Penrose method during contraction, or the forceps applied. Another exception to the dorsal position is when a labor, too precipitate, has not been checked by an application of the forceps; the woman should then be placed on her side, especially if the pelvis is very large and the child small. This lateral position will then much moderate the uterine contractions, the patient not being able to assist herself so well. But as soon as the presenting part has reached the floor of the pelvis the woman should be replaced on her back.

Presentation of the umbilical cord. Postural replacement of the cord by placing the woman in the knee-and-chest position, as advocated by Drs. Thomas and Papin, succeeds occasionally, but is not to be depended upon. It sometimes succeeds when the cord presents at the superior strait, but always fails when the cord is prolapsed into or out of the vagina. This position, if prolonged, is, moreover, very fatiguing to the woman and hinders labor.

The surest course to follow is to apply the forceps when the head is in the excavation with a prolapsed cord, or version if the head is at or above the brim. This method, in the hands of eminent accoucheurs, has saved fifty-two out of sixty-four children. The other methods of reposition usually fail. If the child is dead, of course nothing is to be done but to deliver it with promptitude.

Posture in gynecology. In retroflexion, the knee-and-chest position will greatly assist in attempts at reposition. Knowing the difficulty and often failures of the ordinary methods, I have devised an instrument for the purpose, known as my rectal repositor. (Here the speaker described his instrument). Even if there should be adhesions, the result of posterior parametritis, I generally succeed by breaking or stretching them by persistent gentle pressure. The woman on her knees and chest, the instrument is introduced into the rectum, guided by two fingers in the vagina, until it passes behind the promontory of the sacrum, and by a gentle leverage movement the fundus is directed forward in the anteversion position, the instrument withdrawn, and an Albert Smith or Thomas pessary inserted before the

woman resumes the lateral position, and a sound introduced to verify the result—generally perfect.

THE PRESIDENT.—The excellent paper presented by Dr. Potter has received very thorough discussion by the Fellows, and it is hardly necessary for me to speak at length. I simply desire to make one remark in regard to the dorsal position in some of the operations we do upon the vagina. The table I am using myself—a narrow one—can be converted into the Trendelenburg elevation at any time. Instead of bringing the leg up in this position (illustrating), one can do away with any form of apparatus, by the use of two upright posts, one at each corner of the foot of the table, holding the patient against them. At the same time it exposes the vaginal and abdominal walls. It is so simple that the posts can be attached to any narrow table, and hold the patient in an admirable position.

DR. POTTER (closing the discussion).—This subject has been so admirably discussed from its several points of view that I trust you will pardon me if I say but few words in conclusion.

Dr. Ross was kind enough to suggest that I might have been more accurate, or might have more nearly perfected some of the illustrations of posture. He has shown it to be desirable to have the Sims position, and perhaps one or two others, elaborated a little more by exhibiting the vagina in a state of dilatation and instrumentation. The difficulties in getting a model adapted to the reproduction of the external details of posture, and at the same time permitting an interior view of the genital tract by means of artificial light and instrumentation, are very great. To accomplish this, two or three models are needful—one that is of good figure and graceful lines to represent the externals, and others that are suited to internal demonstration. But those who are adapted to the work in every particular are not easily secured. I thought, in making this demonstration, it was better to pay special attention to accurate poses, leaving other questions to a more convenient period. I accept the criticism, however, as a fair one, considering the desirability of presenting the subject in its nearest perfection, and shall continue the work on the lines suggested by Dr. Ross, hoping to get some, if not all, of these features of posture ready for presentation at a future meeting.

Dr. Ross also remarked, with reference to replacing retroflexed uteri, that the sound had been useful to him. I wish to say, in reply, that the sound is an instrument I have little or no use for; especially would I not employ it to reposit a retro-displaced uterus. Any man

who will accustom himself to employing the genu-pectoral posture in the treatment of displaced uteri will, I am sure, have no use for the sound in that relation. Having said a good deal on previous occasions in condemnation of the uterine sound, I will not absorb valuable time by speaking further on this branch of the subject at present.

Dr. Reed, using the diagram, Fig. 4, to illustrate, reasons that it would increase the distress resultant from a displaced womb, if the woman, now stooping, should be straightened up and made to assume the correct posture in standing, sitting, or walking. Let the displacement first be corrected, and I cannot believe that Dr. Reed will experience the difficulty he imagines; at all events, I have not found his theory borne out in practice. The contrary is really true. First, replace the dislocated womb, and the proper erect posture becomes of aid in retaining it, and, after she accustoms herself to the change, increases a woman's comfort.

Dr. Reed very properly called attention to a method of utilizing the erect posture for diagnosis which I have not emphasized. I am not familiar with his method, but I shall try to make myself so, for it appears important. On another occasion Dr. Reed¹ has stated, with reference to the diagnosis of intra-pelvic diseases, that "it is not necessary to place the patient in any other than the recumbent posture with the knees flexed. The Sims position may in exceptional cases be found to be of real value; the knee-chest and other postures sometimes effected have never been necessary in my practice." Other men of experience have expressed, either publicly or privately, substantially the same opinion. It is for this reason that I have laid some stress upon those postures, especially the genu-pectoral. I believe it is a posture that has been somewhat abused, either in its neglect or improper use, hence its results have not been as satisfactory in the treatment of pelvic diseases as they ought to have been.

I am thankful to Dr. Taylor for calling attention to the importance of properly posing a woman in order to obtain the greatest advantages of this posture. If the pose is not made correctly, all its possibilities will not become available. A table is essential for its highest benefit, and for that matter a table is superior to any other contrivance for any and all gynecological work. While there are various tables in the market, some of which are made of polished wood in handsome designs, with nickel-plated ornamentations, that have great usefulness, yet a plain, ordinary four-legged table will answer every purpose, provided it is of proper height and width; with such a table one may do excel-

¹ Buffalo Medical and Surgical Journal, September, 1892, vol. xxxii., No. 2, p. 83.

lent work. The woman's thighs should be placed perpendicularly to the plane of the table, while her feet should form the hypotenuse of a right-angled triangle. In this position there can be no straining or bearing down, as all voluntary muscular power residing in the abdominal muscles is for the time being *hors de combat*. On separating the labia the air rushes into the empty vagina, the viscera having gravitated toward the epigastrium, and the whole vaginal vault becomes visible at a glance. Can anyone doubt that under conditions like these, diagnosis and, in many instances, treatment is greatly facilitated?

Dr. Glasgow evidently misunderstood me when he quoted me as saying that the faulty erect posture was often assumed by hard-working women—women who wash, scrub, and do other severe manual labor for a living—to their physical detriment or to the provocation of pelvic disease. What I particularly intended to say, and what I now desire to be understood as saying is, that the class of women who often become *habitués*, so to speak, of the incorrect or faulty erect posture are the women who work hard in one sense but not in another; they are not, as a rule, the women who scrub the floor or do the washing. I agree with Dr. Glasgow that these hard-working women are less often gynecological patients than another class—namely, the medium-worked women, the women who stand on their feet in the shops day after day for several hours, or who sit at their sewing machines, or who ply their needles, often late into the night, in the desperate endeavor to earn their bread in the sweat of their faces. It is such work that inclines them constantly toward an incorrect assumption of the erect posture, either standing or sitting.

In reply to the question of Dr. Ricketts, "Is it possible to put these patients to bed as dry who have been operated on in the Trendelenburg position?" I beg to state that where irrigation is used in this posture it certainly is more difficult to keep the patient dry; but, if just prior to irrigation the incline is lowered, the difficulty can thus be met.

One word more, and I have done. Let me say that I do not desire to be understood as affirming that the imperfect erect posture ought to be charged with causing any large percentage of pelvic disease. But I asseverate that in a considerable percentage of such disease that cannot otherwise be accounted for—*i. e.*, by puerperal, specific, traumatic, or other infection—it will be found that faulty posture plays an important etiological part, either primarily or secondarily. I think you all understand me; you see these cases, and you cannot always readily account for their condition. These women come to you with pelvic

disease, and, although you recognize its presence, just how it began, which is cause and which is effect, is now almost impossible to determine. The disease in a considerable proportion of such cases, I believe, has its origin in the faulty assumption of the erect posture—playing perhaps upon a focus of menstrual disturbance—which, through the law of gravitation and other factors acting to keep alive blood stasis, makes them sickly women.

